

ABSTRACT

Handles allow hand tools, implements or other utensils to operate within their arc of natural use, motion and attack without requiring extension, flexion, radial deviation, or ulnar deviation of the wrist from the neutral plane of the forearm. The preferred
5 embodiments further include a grip shaped to increase the effectiveness of the tool and minimize antagonism between muscles and tendons of the wrist, forearm and upper arm, while maximizing the effectiveness of the gripping force delivered to it by the user. Maintaining the wrist and forearm in a neutral position increases a tool user's potential strength by increasing the synergy between large muscles of the forearm and upper arm
10 and shoulders. It also decreases compression of the tendons and nerves in the carpal tunnel and between the wrist and forearm. Grips according to the invention preferably conform in shape, diameter and dimensions to the physical architecture of the hand such that grip tension and compression of the tendons in the wrist and forearm is optimized, minimizing the compressive force on the small muscles, tendons, and ligaments of the
15 fingers, hand, wrist, and forearm, while maximizing the contributive effectiveness of the larger muscles of the forearm, upper arm and shoulder.